FIG. 1

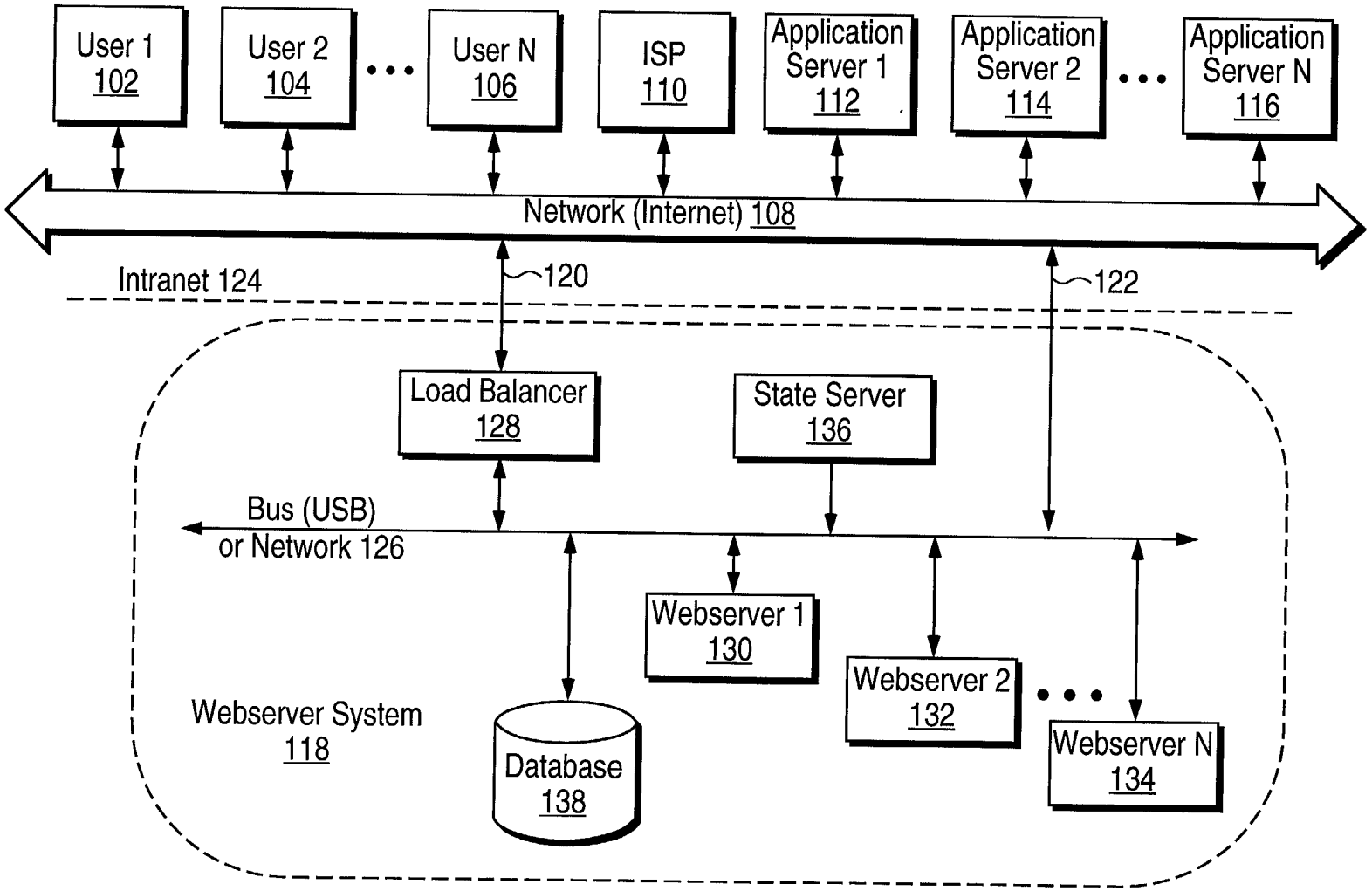
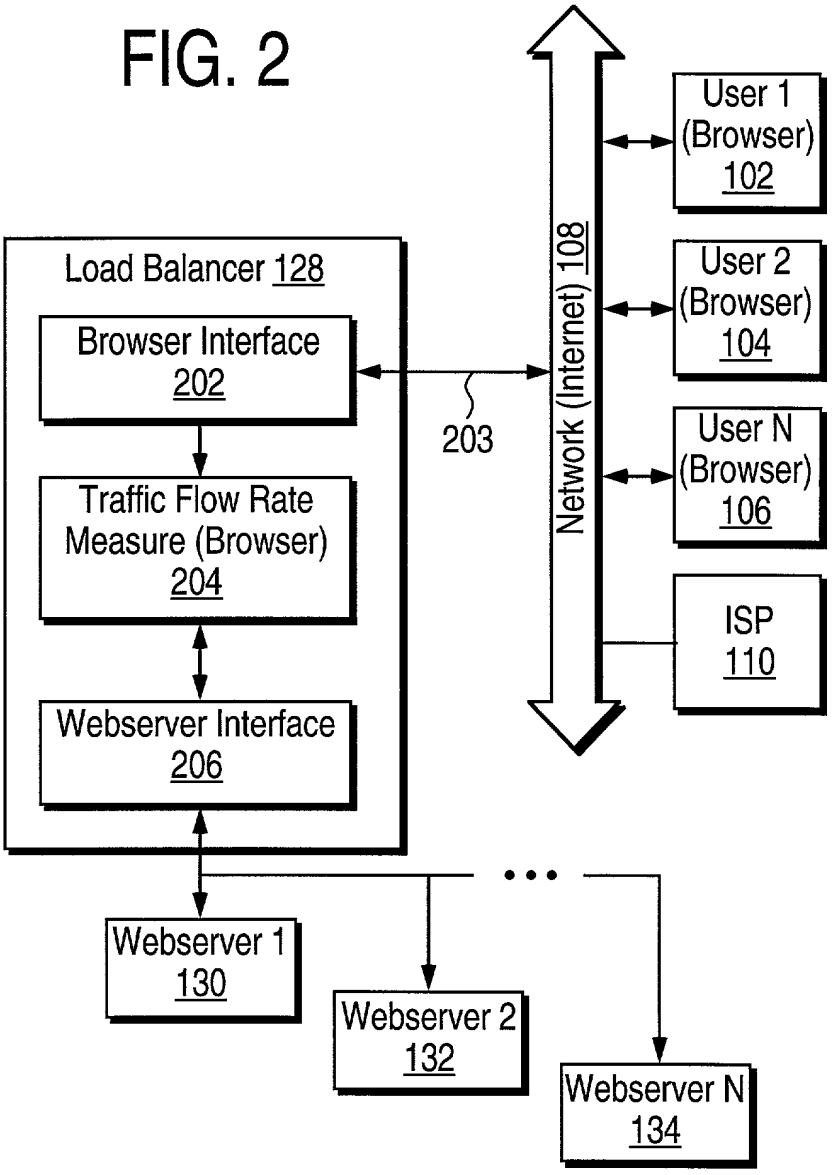


FIG. 2


Load Balancer 128
Browser Interface 202
Traffic Flow Rate Measure (Browser) 204
Webserver Interface 206
203
Network (Internet) 108
User 1 (Browser) 102
User 2 (Browser) 104
User N (Browser) 106
ISP 110
Webserver 1 130
Webserver 2 132
Webserver N 134

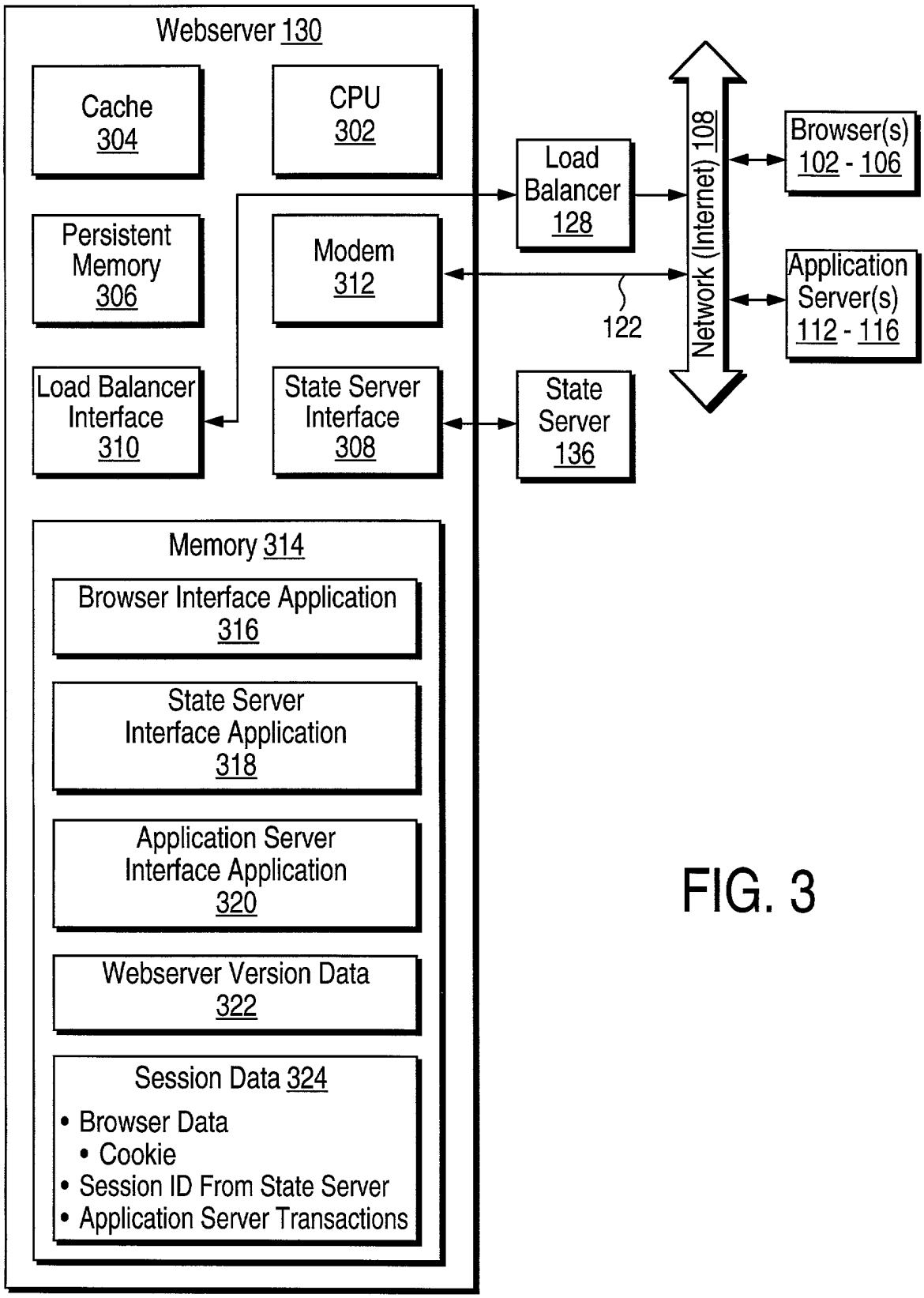

Webserver 130
Cache 304
CPU 302
Persistent Memory 306
Modem 312
Load Balancer Interface 310
State Server Interface 308
Memory 314
Browser Interface Application 316
State Server Interface Application 318
Application Server Interface Application 320
Webserver Version Data 322
Session Data 324
• Browser Data
• Cookie
• Session ID From State Server
• Application Server Transactions
Load Balancer 128
State Server 136
122
Network (Internet) 108
Browser(s) 102 - 106
Application Server(s) 112 - 116

FIG. 3

FIG. 4

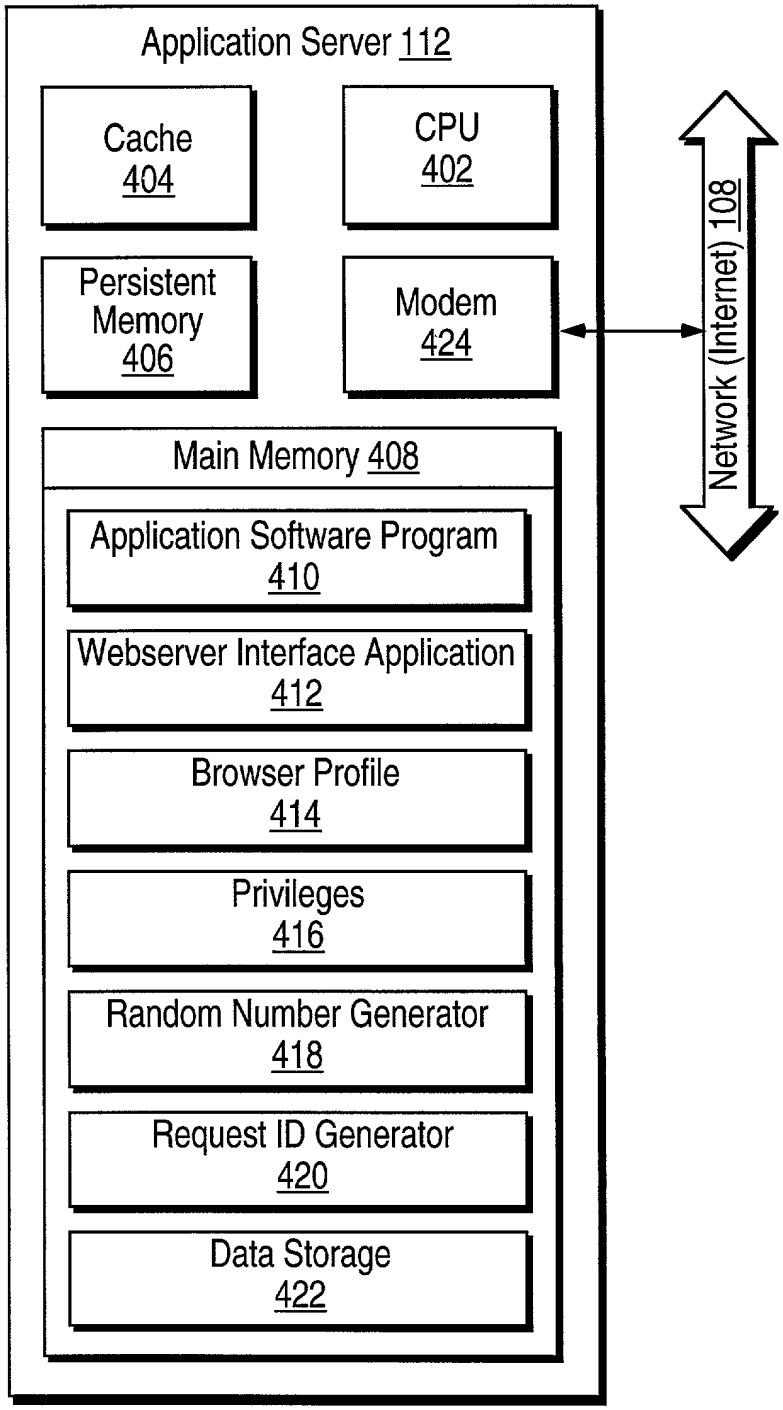
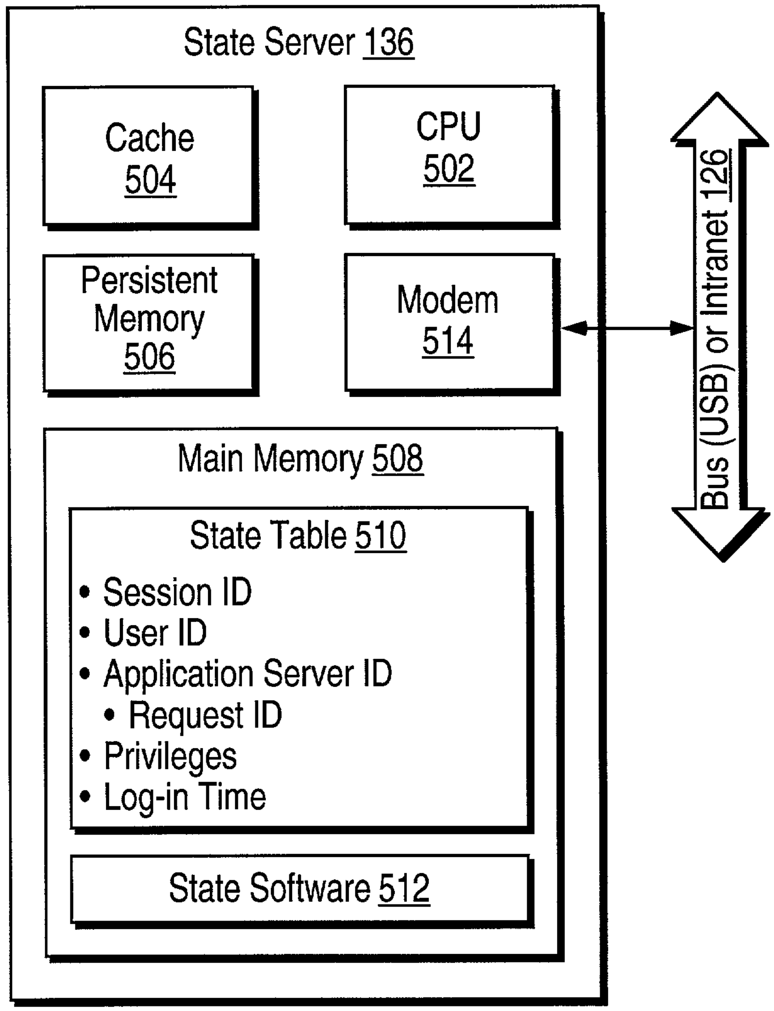

Application Server 112
Cache 404
CPU 402
Persistent Memory 406
Modem 424
Network (Internet) 108
Main Memory 408
Application Software Program 410
Webserver Interface Application 412
Browser Profile 414
Privileges 416
Random Number Generator 418
Request ID Generator 420
Data Storage 422

FIG. 5



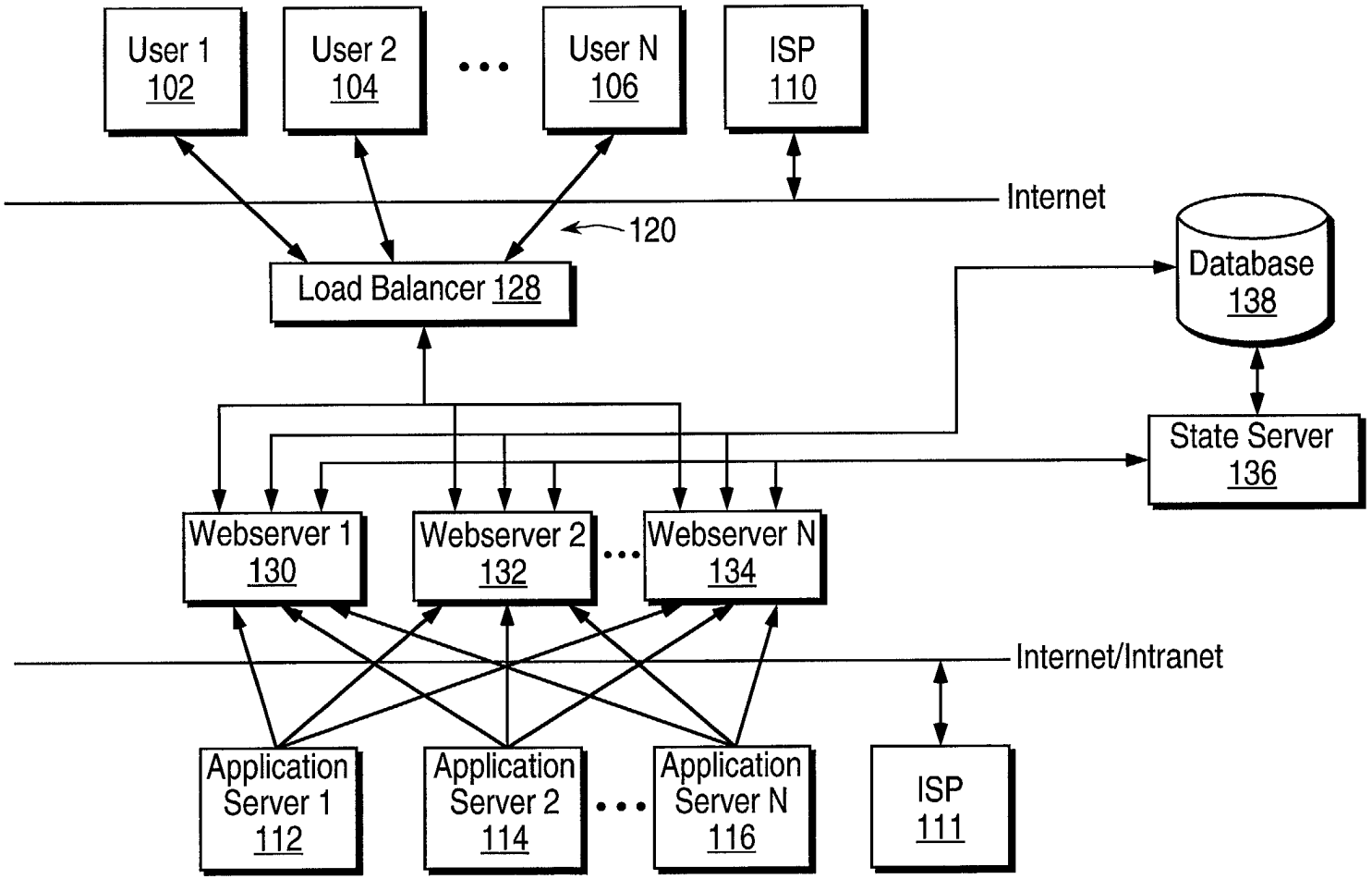

User 1
102
User 2
104
User N
106
ISP
110
Internet
120
Load Balancer 128
Database
138
State Server
136
Webserver 1
130
Webserver 2
132
Webserver N
134
Internet/Intranet
Application
Server 1
112
Application
Server 2
114
Application
Server N
116
ISP
111

FIG. 6

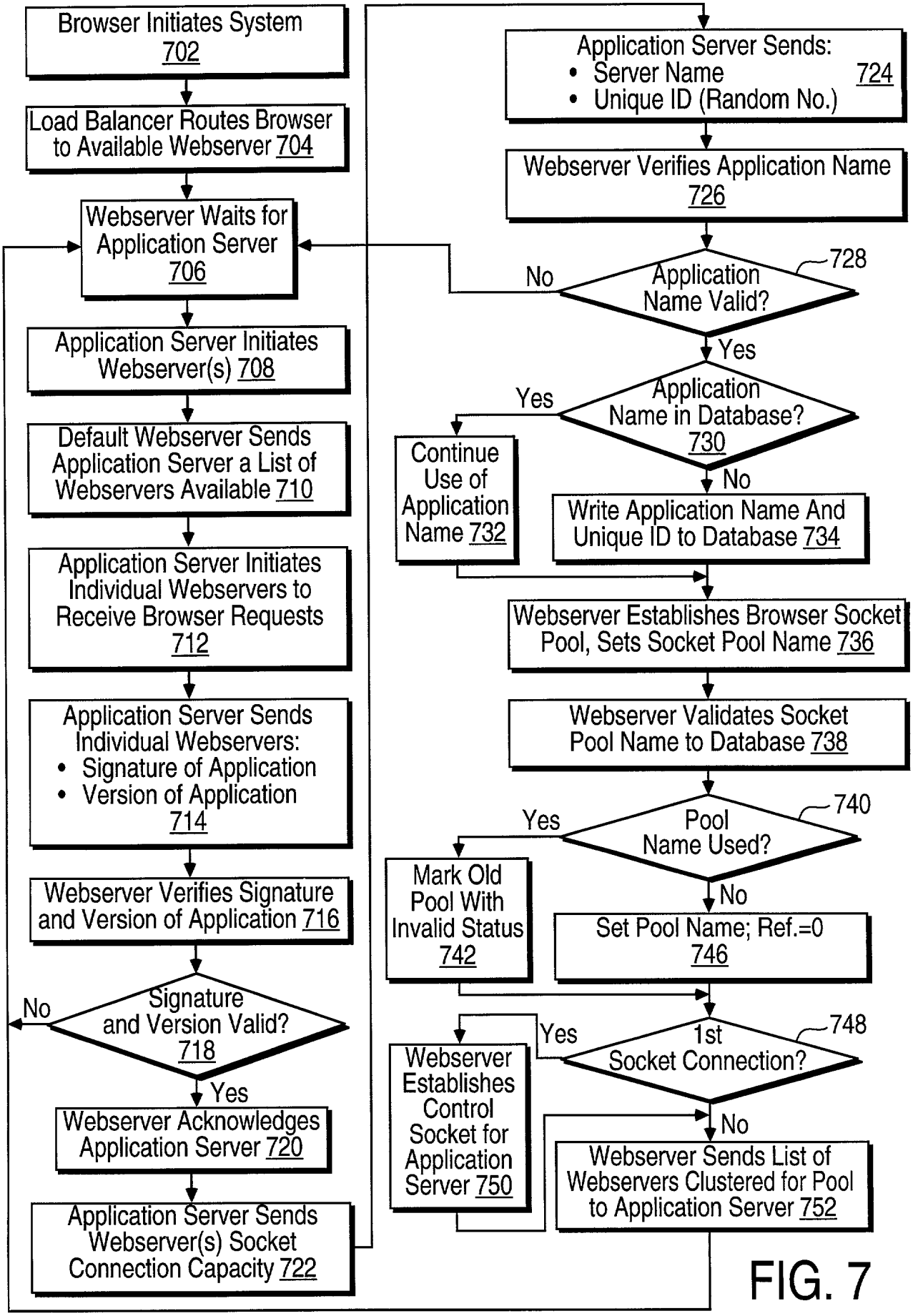

Browser Initiates System 702
Load Balancer Routes Browser to Available Webserver 704
Webserver Waits for Application Server 706
Application Server Initiates Webserver(s) 708
Default Webserver Sends Application Server a List of Webservers Available 710
Application Server Initiates Individual Webservers to Receive Browser Requests 712
Application Server Sends Individual Webservers:
• Signature of Application
• Version of Application
714
Webserver Verifies Signature and Version of Application 716
Signature and Version Valid? 718
No
Yes
Webserver Acknowledges Application Server 720
Application Server Sends Webserver(s) Socket Connection Capacity 722
Application Server Sends:
• Server Name 724
• Unique ID (Random No.)
Webserver Verifies Application Name 726
Application Name Valid? 728
No
Yes
Application Name in Database? 730
Yes
No
Continue Use of Application Name 732
Write Application Name And Unique ID to Database 734
Webserver Establishes Browser Socket Pool, Sets Socket Pool Name 736
Webserver Validates Socket Pool Name to Database 738
Pool Name Used? 740
Yes
No
Mark Old Pool With Invalid Status 742
Set Pool Name; Ref.=0 746
1st Socket Connection? 748
Yes
No
Webserver Establishes Control Socket for Application Server 750
Webserver Sends List of Webservers Clustered for Pool to Application Server 752

FIG. 7

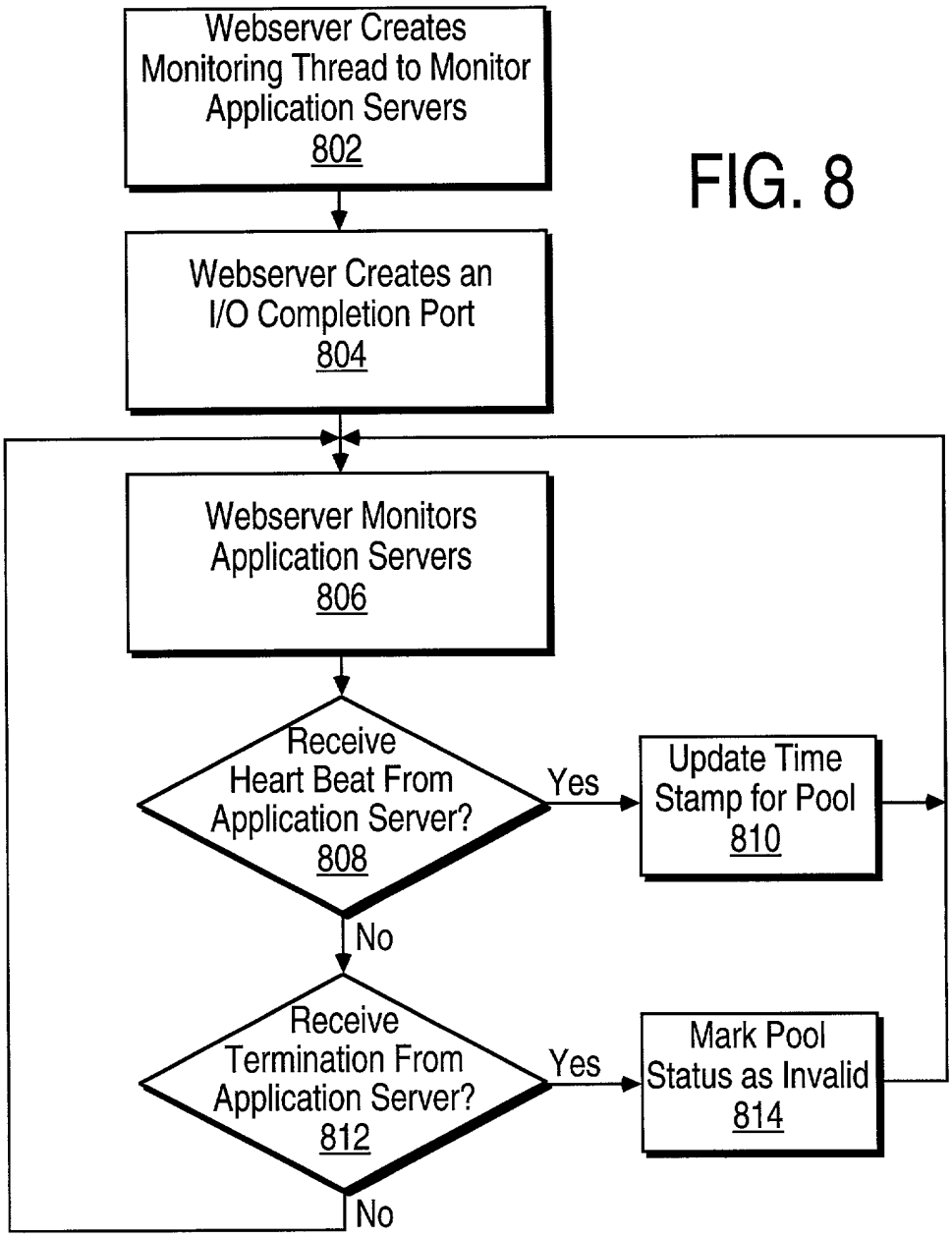

Webserver Creates Monitoring Thread to Monitor Application Servers 802
Webserver Creates an I/O Completion Port 804
Webserver Monitors Application Servers 806
Receive Heart Beat From Application Server? 808
Yes
Update Time Stamp for Pool 810
No
Receive Termination From Application Server? 812
Yes
Mark Pool Status as Invalid 814
No

FIG. 8

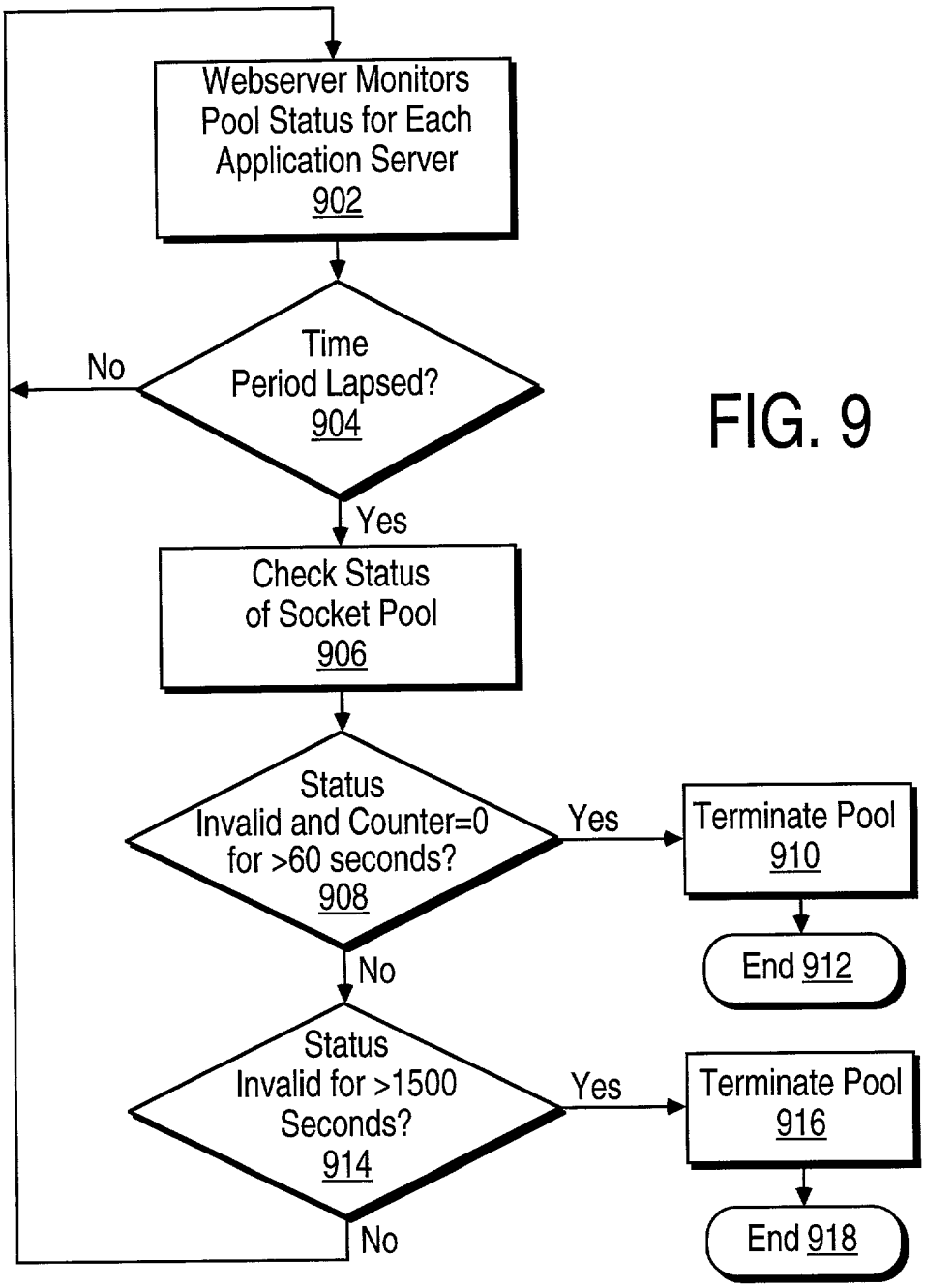

Webserver Monitors Pool Status for Each Application Server 902
Time Period Lapsed? 904
No
Yes
Check Status of Socket Pool 906
Status Invalid and Counter=0 for >60 seconds? 908
Yes
Terminate Pool 910
End 912
No
Status Invalid for >1500 Seconds? 914
Yes
Terminate Pool 916
End 918
No

FIG. 9

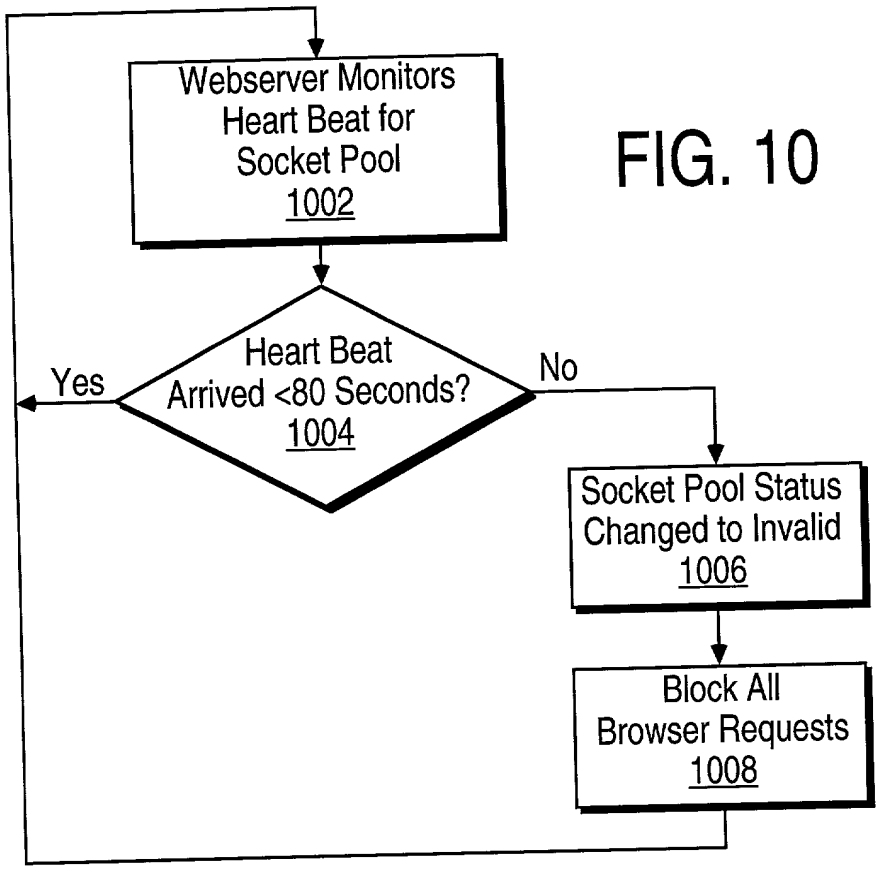
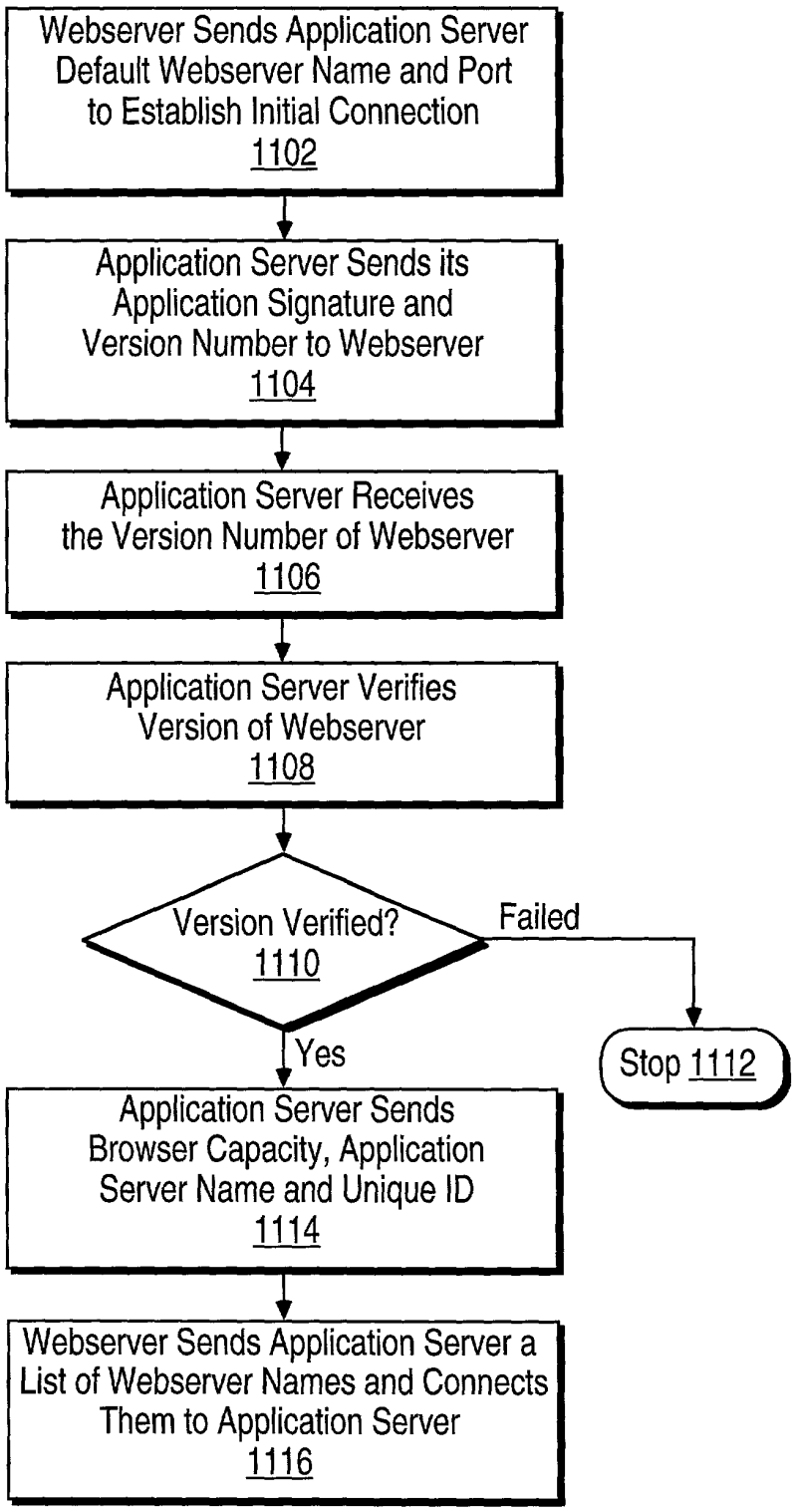

Webserver Monitors Heart Beat for Socket Pool 1002
Heart Beat Arrived <80 Seconds? 1004
Yes
No
Socket Pool Status Changed to Invalid 1006
Block All Browser Requests 1008

FIG. 10

FIG. 11


Webserver Sends Application Server Default Webserver Name and Port to Establish Initial Connection 1102
Application Server Sends its Application Signature and Version Number to Webserver 1104
Application Server Receives the Version Number of Webserver 1106
Application Server Verifies Version of Webserver 1108
Version Verified? 1110
Failed
Stop 1112
Yes
Application Server Sends Browser Capacity, Application Server Name and Unique ID 1114
Webserver Sends Application Server a List of Webserver Names and Connects Them to Application Server 1116

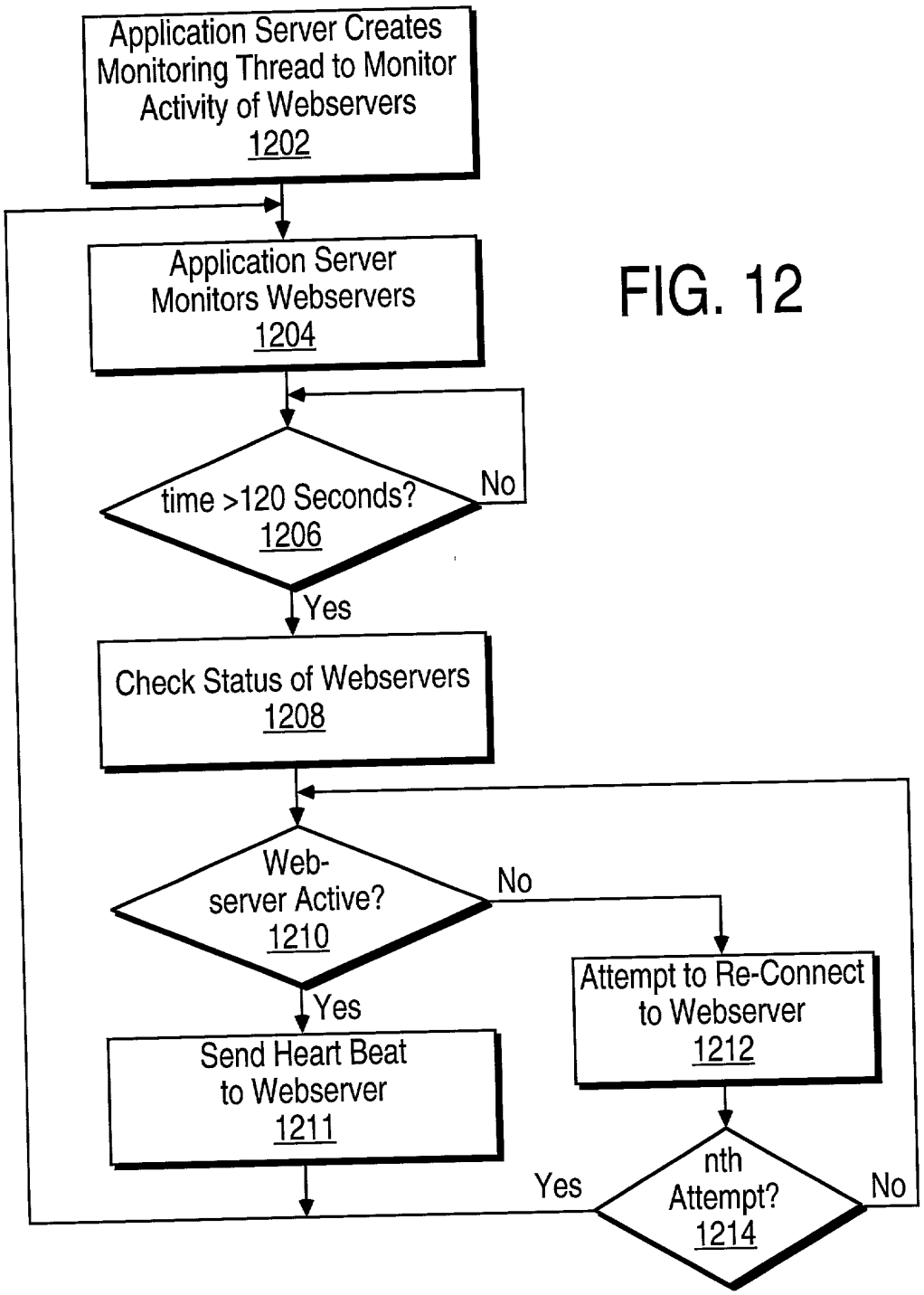

Application Server Creates Monitoring Thread to Monitor Activity of Webservers
1202
Application Server Monitors Webservers
1204
time >120 Seconds?
1206
No
Yes
Check Status of Webservers
1208
Web-server Active?
1210
No
Yes
Send Heart Beat to Webserver
1211
Attempt to Re-Connect to Webserver
1212
nth Attempt?
1214
Yes
No

FIG. 12

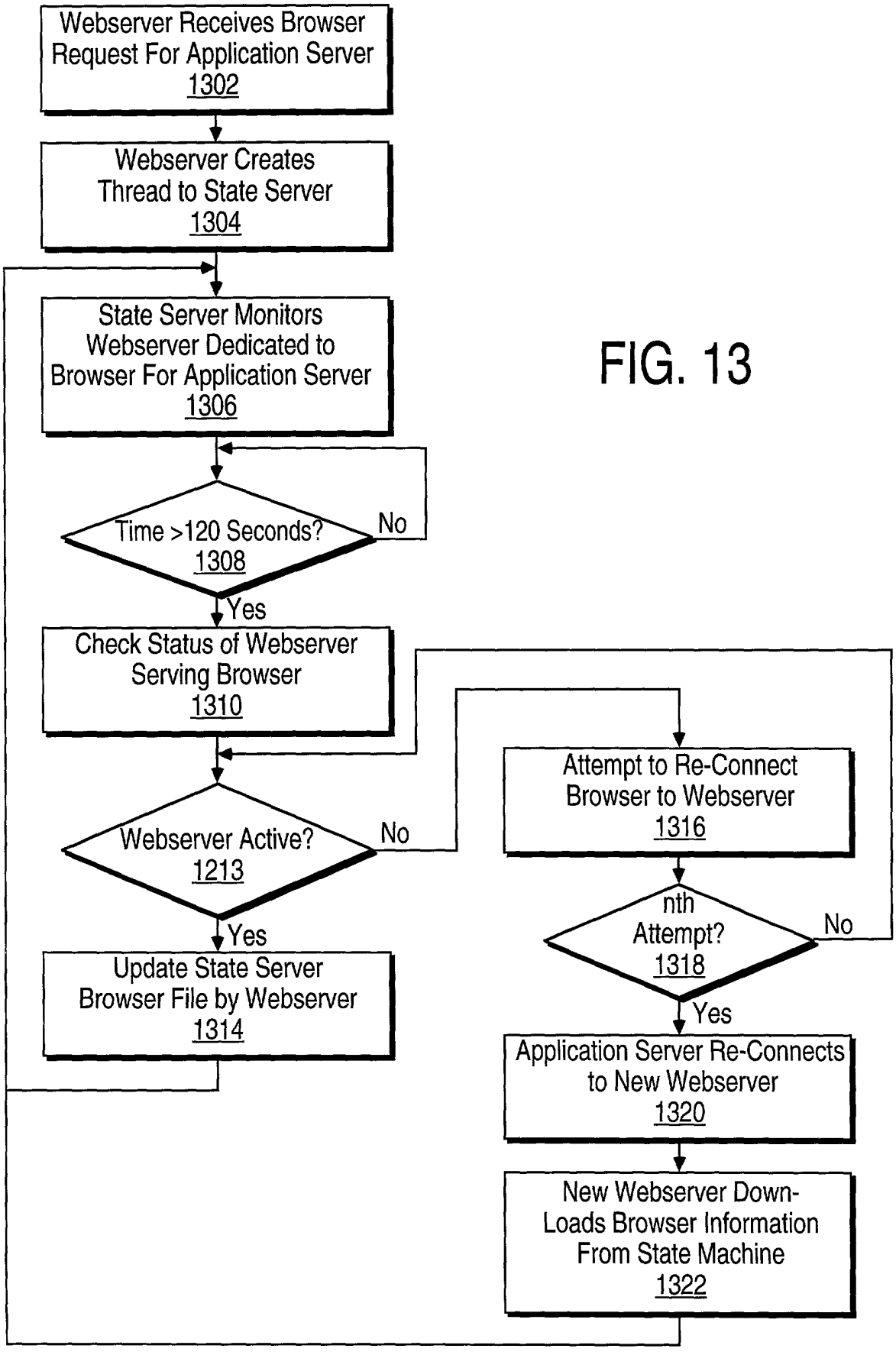

Webserver Receives Browser Request For Application Server 1302
Webserver Creates Thread to State Server 1304
State Server Monitors Webserver Dedicated to Browser For Application Server 1306
Time >120 Seconds? 1308
No
Yes
Check Status of Webserver Serving Browser 1310
Webserver Active? 1213
No
Yes
Update State Server Browser File by Webserver 1314
Attempt to Re-Connect Browser to Webserver 1316
nth Attempt? 1318
No
Yes
Application Server Re-Connects to New Webserver 1320
New Webserver Down-Loads Browser Information From State Machine 1322

FIG. 13